

## IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier versions and listings.

For the Examiner's convenience, all of the pending claims, even though none are being amended herein, are set forth below.

1. - 58. (Canceled)

59. (Previously Presented) A method for detecting the pitch values of notes in a musical sound signal, comprising the steps of:

identifying one or more voiced segments in the sound signal using an energy function of the sound signal;

applying a gradient-based processing to said voiced segments for dividing each voiced segment into one or more notes; and

deriving pitch values of the respective notes in the sound signal.

60. (Previously Presented) A method according to claim 59, wherein the process of dividing the voiced segments into notes uses note markers to do so.

61. (Previously Presented) A method according to claim 60, wherein the process of deriving the pitch values of the respective notes comprises dividing portions of each voiced segment between the note markers into blocks.

62. (Previously Presented) A method according to claim 61, wherein each portion contains the same number of blocks.

63. (Previously Presented) A method according to claim 59, wherein the process of deriving the pitch values of the respective notes comprises applying k-mean clustering on pitch values derived for the blocks between the note markers.

64. (Previously Presented) A method according to claim 59, further comprising the step of rounding the derived pitch values of the respective notes to the nearest note values.

65. (Previously Presented) A method according to claim 59, wherein the identifying of the voiced segments is performed based on a determination of silences in the sound signal.

66. (Canceled)

67. (Previously Presented) A method according to claim 59, further comprising the step of extracting notes from said pitch values to create note descriptors.

68. (Previously Presented) A method according to claim 59, wherein the sound signal is digitized.

69. (Previously Presented) A method according to claim 59, wherein the sound signal is an audio signal of a sound produced by a person.

70. (Previously Presented) A method according to claim 69, wherein the sound comprises one or more of the group of: humming, singing and whistling at least a portion of a piece of music.

71. (Previously Presented) Apparatus for use in use in detecting the pitch values of notes in a musical sound signal, operable according to the method of claim 59.

72. (Previously Presented) Apparatus for detecting the pitch values of notes in a musical sound signal, comprising:

means for identifying one or more voiced segments in the sound signal using an energy function of the sound signal;

means for applying a gradient-based processing to said voiced segments for dividing each voiced segment into one or more notes; and

means for deriving pitch values of the respective notes in the sound signal.

73. (Previously Presented) Apparatus according to claim 72, wherein said means for applying a gradient-based processing uses note markers to isolate notes.

74. (Previously Presented) Apparatus according to claim 73, wherein the means for deriving the pitch values of the respective notes divides portions of each voiced segment between the note markers into blocks.

75. (Previously Presented) Apparatus according to claim 74, wherein each portion contains the same number of blocks.

76. (Previously Presented) Apparatus according to claim 72, wherein the means for deriving the pitch values of the respective notes is operable to apply k-mean clustering on block pitch values derived for the blocks between the note markers.

77. (Previously Presented) Apparatus according to claim 72, further comprising means for rounding the derived pitch values of the respective notes to the nearest note values.

78. (Previously Presented) Apparatus according to claim 72, wherein the means for identifying the voiced segments operates based on a determination of silences in the sound signal.

79. (Canceled)

80. (Previously Presented) Apparatus according to claim 72, further comprising means for extracting notes from said pitch values to create note descriptors.

81. (Previously Presented) Apparatus according to claim 72, operable to process a digital musical sound signal.

82. (Previously Presented) Apparatus according to claim 72, operable to process a musical sound signal being an audio signal of a sound produced by a person.

83. (Previously Presented) Apparatus according to claim 82, wherein the sound comprises one or more of the group of: humming, singing and whistling at least a portion of a piece of music.

84. - 86. (Canceled)